



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,111	09/20/2006	Yoshichika Fukasawa	Q96963	4332
23373	7590	05/14/2009	EXAMINER	
SUGHRUE MION, PLLC			THROWER, LARRY W	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037			1791	
			MAIL DATE	DELIVERY MODE
			05/14/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,111	FUKASAWA ET AL.	
	Examiner	Art Unit	
	LARRY THROWER	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 01 May 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-6 and 9 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-6 and 9 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____ .
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____ .	6) <input type="checkbox"/> Other: _____ .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 1, 2009 has been entered.

Response to Amendment

2. Claims 1 and 6 are amended; claim 9 is new; claims 7-8 are canceled. Claims 1-6 and 9 are under examination.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claims 1 and 5** are rejected under 35 U.S.C. 102(b) as being anticipated by Ono (U.S. Patent Publication No. 2001/0054782).

- Regarding **claim 1**, Ono discloses a method of vulcanization-molding a rubber material a method of vulcanization-molding a rubber material (title; ¶ 18) by heating a vulcanization mold and pushing the rubber material onto a shaping face of the mold (fig. 3) through a pressure supplied to an interior of the mold (¶ 20), wherein a low-pressure fluid is supplied to the interior of the mold at an initial stage (fig. 1,

“P1D”) of the vulcanization molding and thereafter the pressure of the fluid is increased stepwise (fig. 1, “P1U (P2D)”, “P2U”; ¶ 34), wherein the low-pressure fluid has a pressure of 0.5 MPa (Table 1, Ex. 1).

- Regarding **claim 5**, Ono discloses the fluid being steam (¶ 21).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-6 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Arimatsu (JP-61084211A).

- Regarding **claim 1**, Arimatsu teaches a method of vulcanization-molding a rubber material (title) by heating a vulcanization mold and pushing the rubber material onto a shaping face of the mold (fig. 1) through a pressure supplied to an interior of the mold (page 4, upper right, first paragraph), wherein a low-pressure fluid is supplied to the interior of the mold at an initial stage of the vulcanization molding and thereafter the pressure of the fluid is increased stepwise (fig. 6; page 4, upper right, first paragraph).
- Arimatsu discloses the low-pressure fluid having a pressure of 0.98 MPa, but fails to disclose the pressure being 0.5-0.8 MPa. A *prima facie* case of obviousness typically exists when the ranges of a claimed element overlap the ranges disclosed

in the prior art. *In re Geisler*, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997). It has also been held that a prima facie case of obviousness exists when the claimed range and the prior art range do not overlap but are close enough such that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783, 227 USPQ 773, 779 (Fed. Cir. 1985). Such is the case here. The reference teaches a pressure which is close to the claimed range. One would have been motivated at the time the invention was made to optimize the pressure in order to prevent rubber bareness and effectively mold the surface of the tire.

- Regarding **claim 2**, Arimatsu discloses a low-temperature fluid being supplied to the interior of the vulcanization mold at the initial stage of the vulcanization molding and thereafter the temperature of the fluid is increased stepwise (page 3, lower right, second paragraph).
- Regarding **claim 3**, Arimatsu discloses two fluids having different pressures and temperatures being selectively supplied to the interior of the vulcanization mold (page 2, upper right, third paragraph).
- Regarding **claim 4**, Arimatsu teaches after the supply of the fluids to the interior of the vulcanization mold, an inert gas having a pressure higher than the two fluids is supplied to the mold (page 2, lower right, second paragraph).
- Regarding **claim 5**, Arimatsu discloses the fluid being steam (page 3, upper right, second paragraph).

- Regarding **claim 6**, Arimatsu teaches a time at the initial stage of the vulcanization molding being within a range of 3 minutes wherein the fluid is steam.
- Regarding **claim 9**, Arimatsu is silent as to the protrusion length. However, absent evidence of unexpected results obtained from the protrusion length, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected a suitable pressure to form protrusions of a desired length, the pressure being a result effective variable routinely optimized by those of skill in the art. The optimization of a range or other variable within the claims that flows from the “normal desire of scientists or artisans to improve upon what is already generally known” is *prima facie* obvious. *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003).

Response to Arguments

6. Applicant's arguments with respect to claims 1-6 and 9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LARRY THROWER whose telephone number is 571-270-5517. The examiner can normally be reached on Monday through Friday from 9:30AM-6PM est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on 571-272-1176. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Larry Thrower/
Examiner, Art Unit 1791

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791